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| 10/676,433 | 09/30/2003 | Sandeep K. Gopisetty | ARC920030047US1 | 3426 |

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| EXAMINER | |
|---|---|
| KEEFER, MICHAEL E | |
| ART UNIT | PAPER NUMBER |
| 2109 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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| 3 MONTHS | 03/01/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/676,433 | GOPISETTY ET AL. | |
| | Examiner | Art Unit | |
| | Michael E. Keefer | 2109 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 09/30/2003 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. This Office Action is responsive to the Application filed 9/30/2003.

### *Specification*

2. The disclosure is objected to because of the following informalities:

On page 7, the word "hubs" should be deleted and replaced with the word --hubs,--.

Appropriate correction is required.

### *Drawings*

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

In Figure 1, the Storage Area Network (SAN) is referred to in the specification as item 10.

In Figure 3, all items lack the drawing numbers they are given in the specification:

Host 1 (32), Host 2 (34), Host 3 (36), SS1 (38), SW1 (40), SW2 (42), P4 (44), P5 (46), P6 (48), P0 (50), P1 (52), P2 (54), P3 (56).

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "32" has been used to designate both Host 1 and SAN in Fig. 3.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

Figure 4, blocks 66 and 68 are not mentioned in the description.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

6. Claim 1, 4-5, and 10-11 are objected to because of the following informalities:

Regarding **claim 1**, it is suggested that in line 8, the word "base3d" be deleted and replaced with the word --based-- to improve the clarity of the claim.

Regarding **claims 4 and 10**, it is suggested that the word --said-- be inserted in line 2 between "of" and "data." to improve the clarity of the claim.

Regarding **claim 5**, it is suggested that the word --said-- be inserted in line 2 between "which" and "storage" to improve the clarity of the claim.

It is further suggested that the word --said-- be inserted in line 2 between "which" and "hosts." to improve the clarity of the claim.

Regarding **claim 11**, it is suggested that the word --said-- be inserted in line 2 between "which" and "storage" to improve the clarity of the claim.

It is further suggested that the word --said-- be inserted in line 3 between "which" and "hosts." to improve the clarity of the claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-5, 7-11, and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding **claim 1**, which is directed to a method of generating a network zone plan comprising the steps of collecting, performing, identifying, and generating. In order for claimed subject matter to be considered statutory, it must have a concrete, useful, and tangible result. In this case, the result is concrete and useful, but it is not tangible. The mere act of generating fails to produce a real world result as nothing is done with the generated zone plan, it is not stored in memory, implemented, or displayed for a user.

**Claims 2-5**, which are dependent on claim 1 fail to add a tangible result to the method and are rejected for the same.

Regarding **claim 7**, which is directed to a computer program product that contains code to perform the steps of collecting, performing, identifying, and generating. In order for claimed subject matter to be considered statutory, it must have a concrete, useful, and tangible result. In this case, the result is concrete and useful, but it is not tangible. The mere act of generating fails to produce a real world result as nothing is done with the generated zone plan, it is not stored in memory, implemented, or displayed for a user.

**Claims 8-11**, which are dependent on claim 7 fail to add a tangible result to the method and are rejected for the same.

Regarding **Claim 13**, which is directed to a system to provide autonomic zoning in a network comprising an autonomic zoning management module. In order for claimed subject matter to be considered statutory, it must have a concrete, useful, and tangible result. In this case, the result is concrete and useful, but it is not tangible. The mere act of generating fails to produce a real world result as nothing is done with the generated zone plan, it is not stored in memory, implemented, or displayed for a user.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuzaki et al. (US 2003/0189929), hereafter Matsuzaki.

Regarding **claim 1**, Matsuzaki discloses:

A method of generating a network zone plan, comprising:

collecting device connectivity information for devices in a network; ([0055] states that the information necessary for system construction is input into the system. In [0056] it describes that the first part of information required is about physical devices, and that the second part is about the connections between the devices. Inherently, in order for this information to be input, it must be collected.)

performing an analysis on the collected information to infer relationships between the devices; (This analysis of the collected information is inherently preformed in order to supply the third information listed in the last three lines of [0056], i.e. access path data.)

identifying policies to be utilized in generating a zone plan of the network (These policies are identified in [0080] as access path data is input into the system); and

generating the zone plan based on a combination of the analysis performed and the identified zoning policies. (the zone plan is generated in [0081] (i.e. "access path connection command files").

Regarding **claim 2 as applied to claim 1**, Matsuzaki discloses:

The method of claim 1 wherein the network is a storage area network (SAN). (Note the title of the invention specifies the solution is for a Storage Area

Network, and that the specification continuously refers to a SAN (Storage Area Network.)

Regarding **claim 6 as applied to claim 1**, Matsuzaki discloses:

presenting the zone plan for approval, wherein the zone plan is not implemented until approval is received. ([0082] lines 1-5, note that implementation of the SAN is not completed until the user has completed the design, inherently approving it.)

10. Claims 1-2, 7-8, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsieh et al. (US 6751702), hereafter Hsieh.

Regarding **claims 1 and 7**, Hsieh discloses:

A method of generating a network zone plan, comprising:

collecting device connectivity information for devices in a network; (this collection must inherently take place in order to create the data model in Fig. 8)

performing an analysis on the collected information to infer relationships between the devices; (this analysis is also performed inherently in order to be able to create the relationships between devices on the network that are shown in the data model)

identifying policies to be utilized in generating a zone plan of the network (these policies are defined by the controller in the storage system, see Col. 19, lines 54-67 which detail setting up the policies for a host that effect the zoning for that host); and

generating the zone plan based on a combination of the analysis performed and the identified zoning policies. (Fig. 7, Step 702, which is described as Creating a Path through the switching matrix by Zoning in Col. 20, lines 1-8.)

Hsieh further discloses that the method may be implemented in a computer readable medium.

Regarding **claims 2 and 8 as applied to claims 1 and 7**, Hsieh discloses:

The method of claim 1 wherein the network is a storage area network (SAN). (Col. 3, lines 24-28, state that the system and method are regarding a networked data storage device, making the network a Storage Area Network.)

Regarding **claim 13**, Hsieh discloses:

A system to provide autonomic zoning in a network, comprising:

an autonomic zoning management module to autonomically generate zoning plans pertaining to a network, according to a combination of each device in the network's connectivity information and user generated policies. (The central storage device holds a controller, which performs the steps of collecting, analyzing, identifying, and generating, as shown in the above rejection of claims 1 and 7. Specifically, Hsieh refers to automating the steps of the method shown in Fig. 7 in Col. 19 paragraph 2.)

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuzaki as applied to claim 1 above, and further in view of Tawil et al. (US2002/0103913), hereafter Tawil.

Regarding **claims 3-5**, Matsuzaki discloses:

wherein the devices include host systems (Server 100) to access data and storage subsystems (Storage 200) which are providers of data. (See Fig. 1)

Matsuzaki discloses all the limitations of claims 3-5 except for a zone dictating which devices are visible to each other, or being a network-layer access control mechanism that dictates which storage subsystems are visible to which hosts.

The general concept of zones controlling network visibility between devices is well-known in the art as taught by Tawil. (See [0010], "Devices in the same zone can see each other but devices in different zones cannot see each other.")

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Matsuzaki with the general concept of zones controlling network visibility between devices as taught by Tawil in order to conserve the port login resources of a storage device. (Tawil [0010], lines 1-2)

13. Claims 3-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsieh as applied to claim 1 above, and further in view of Tawil.

Regarding **claims 3-5 and 9-11**, Hsieh discloses:

wherein the devices include host systems (Hosts 1-N) to access data and storage subsystems (Central Storage Device 8) which are providers of data. (See Fig. 1)

Hsieh discloses all the limitations of claims 3-5 and 9-11 except for a zone dictating which devices are visible to each other, or being a network-layer access control mechanism that dictates which storage subsystems are visible to which hosts.

The general concept of zones controlling network visibility between devices is well-known in the art as taught by Tawil. (See [0010], "Devices in the same zone can see each other but devices in different zones cannot see each other.")

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Hsieh with the general concept of zones controlling network visibility between devices as taught by Tawil in order to conserve the port login resources of a storage device. (Tawil [0010], lines 1-2)

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsieh as applied to claim 1 above, and further in view of Matsuzaki.

Hsieh discloses all the limitations of claim 12 except for the zone plan being displayed for approval and the plan not being implemented until it is approved.

The general concept of not implementing a significant change until it has been presented for review and approved is well known in the art as taught by Matsuzaki. ([0082] lines 1-5, note that implementation of the SAN is not completed until the user has completed the design, inherently approving it.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Hsieh with The general concept of not implementing a significant change until it has been presented for review and approved as taught by Matsuzaki in order to ensure the most efficient zoning pattern is achieved.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael E. Keefer whose telephone number is (571) 270-1591. The examiner can normally be reached on Monday-Thursday 8am-5pm, second Fridays 8am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on (571) 270-1808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MEK 2/22/2007

FRANTZ JULES
SUPERVISORY PATENT EXAMINER